



VOLUME 72 ISSUE 6
June 2021

PPRAA Club Officers

President	Don DuBon, N6JRL+
Vice President	Joe Gage, KEØTPW+
Secretary	Jason Taylor, KØWTF+
Treasurer	Dick Kohlhaas, W5UDM+
Ø-Beat Editor	Jerre Redding, WAØBCM
Webmaster	Douglas Nielsen, N7LEM
Past President	Jim Bishop, KD0KQL
Board	John Bloodgood, KDØSFY
Board	R, Lee Glazer WØRLG*
Board	Dennis Major, NØABC*
Board	Logan Perry, KEØKZA*
Board	Anthony Mitchell, KEØLQK*
Board	LD Steiner, WØXLD
Board	Michael Walter KEØTWK
Board	Daniel Burtis, KEØWJL

* In final year of 2-year term

+ One year officer position

All officers can be contacted at: boardmembers@ppraa.org

Monthly Ham Breakfast

New Day Café
5901 Delmonico Dr Saturday
3 July 2021 8 – 9:30 AM



PPRAA Board Meeting (07 June) will be virtual

– There will be an online meeting via Zoom.

PPRAA General Membership meeting (09 June) will be virtual

– There will be an online meeting via Zoom. The business meeting starts at 7 PM, but get your dinner and beverage of choice and check in any time after 6 PM for a social hour. Club members check your email for info or email [Officers](#) to receive the Zoom information.



PIKES PEAK RADIO AMATEUR ASSOCIATION

Minutes of the Board Meeting May 10, 2021

Board Meeting Start 6:30 PM

In Attendance: Don N6JRL, Daniel KE0WJL, Dick W5UDM, Logan KE0KZA, Lee W0RLG, John KD0SFY, Doug

N7LEM, Jim KD0NQM, LD W0XLD, Anthony KE0LQK, Jim KD0KQL, Jason K0WTF, Dennis N0ABC, Jerre WA0BCM

Welcome introductions;

Silent Keys; None Reported.

YDXA N6JRL: Sounds like they're firing this up again. Later part of July.

Vice President; Joe KE0TPW:

For this month's presentation it's Jason and LD's post-mortem on the fox hunt.

For June: DX Engineering

In July: Bob Heil. His presentation is 90 minutes, so it'll be a bit longer than normal.

"Bonnie" has some equipment to donate to the club. Radio, Power supply, Speaker.

Jim KQL Comments: All donations should go through Mike WV7T.

Treasurer's Report , report Dick W5UDM;

Spent 143ish dollars for VE testing printer. Received \$150 from King Soopers.

Received email from Intuit about quickbooks. That version will expire in approximately a month. We need to pay \$35 monthly. We may continue to use the software but without security updates. Does have the original installation media.

Dick W5UDM moves

Jim KD0NQM seconds

Motion Passes.

W0XLD Discuss Fire house key, sesquicentennial, mobile car show event, Apr. Fox Hunt

Hasn't made it out to the station yet to solder a connector for the folded dipole.

Fire Station Key: Still need to get a hold of the fire chief regarding the firehouse key. He should proceed with Don.

Sesquicentennial: July 31 st Pending on our insurance policy. City needs to be named as an additional insured. John will spearhead the event.

LD Moves to further pursue an event on the 31st with the City.

Jason Seconds

Motion Passes.

Summer Car Show: To showcase mobile installs. Need a parking lot and a bathroom. There will hopefully be prizes. Will need volunteers to judge. Cleanest Install, Coolest Install, Highest Power Output, etc.

Maybe the school up in Monument

Indoor flea-market at the corner of Palmer Park and Circle?

Rampart Supply parking lot?

July 24 or August 7?

Maybe combine with the annual club picnic?

Maybe invite a food truck or two?

Mining Museum:

June 12th 10am to 3pm

Working VHF/UHF Station?

Portable station

John KD0SFY has a lot of resources we can lean upon

Doug has the PPRAA Banner

Asset manager: Mike WV7T: Not present

Clubhouse report Steve KT0DX: Not Present

VEC Testing, Dennis N0ABC; 13 Candidates. Everyone walked away with something.

Zero Beat Report Jerre WA0BCM; Will start working on it tomorrow. Get details to Jerre regarding events and whatnot.

Web Master Report Doug N7LEM; Minutes that were put out for April are up on the website.

Updating dates for Colorado QSO party. CCARC sponsoring 10 more awards. Everything is to date.

Secretary's Report; K0WTF:

Minutes were submitted via email.

W5UDM moves

W0XLD Seconds

Motion Carries

Update on 97 Repeater: Nothing really to report.

PPARES Report John KD0SFY: Started mid-day weather nets. Attempting to use the 97/448.450.

Skywarn training has come and gone. Looking to setup a zoom meeting for ham-radio specific skywarn training.

Mega Fest Report Jim KD0NQM: If we're going to have the megafest for next year, we need to start in October to start coordinating door prizes and dates and whatnot.

Internet Committee Doug N7LEM: Nothing to report.

Thursday PPRAA net: Good participation. 10 meter net has 7 or 8 people.

QCWA Chapter 58 Mike WV7T Don N6JRL: Had a meeting. Still being cautious due to covid concerns.

Meeting Adjourn 8:00 PM

K0WTF Moves

N6JRL Seconds

Motion Passes.



PPRAA MAY 12, 2021

MEETING AGENDA

Meeting start: 7:00pm

36 people in attendance

PLEDGE Don N6JRL

SILENT KEYS: None to report.

INTRODUCTIONS / NEW HAMs/MEMBERS?

Lee – Tom – KF0FCV

Anna – KF0FKM

Elizabeth – KF0FKN

Rod – K5KTI

Jason – KF0CEI

Charles – KF0CRX

Kristian – KFOR Y

Daniel – KF0FCX

Jason P. – KF0FCU
Julie – KF0FCT
Robert – N0CFM (from Denver, attended fox hunt!)
Jim – KF0FKK
Terrell – WB4TYO
Matthew (Jason) – KF0FNH

Ray

W0XLD / K0WTF fox hunt Apr. 18, car show

Tease: There was a fox hunt. About 27 people showed up. People won prizes.

VE Testing Dennis N0ABC

Notes from board meeting: Dennis N0ABC; 13 Candidates. Everyone walked away with something.

TREASURER REPORT: DICK W5UDM

Major expenditure was a printer for the VE team.

Income: 300ish in Membership dues.

If you shop at King Soopers, you can designate the PPRAA as a charity to benefit a portion of your purchases! Doing so benefits the club. You can do the same via Amazon Smile!

W0XLD Moves to accept the minutes,

KE0SSH Seconds,

Motion passes.

SECRETARY REPORT: K0WTF Jason

Thanks to W0XLD and KD0SFY for helping out with the Board meeting minutes last month.

KE0TPW Moves to accept the minutes

Daniel Burtis Seconds Motion Passes.

ZEROBEAT: JERRE WA0BCM

ZeroBeat has been published. A few contributions from some folks made it a bit longer than normal, but it's still enjoyable.

WEBMASTER REPORT; DOUG N7LEM

April Meeting Minutes and Zero Beat are posted on the website.

PPARES REPORT; John Bloodgood KD0SFY

Not a lot going on at the moment, the last of the skywarn training sessions were held, will probably be hosting a zoom meeting to go over the amateur radio specific procedures regarding weather reporting. Daily severe weather nets started again, on the PPFMA repeaters (trying to compile signal reports to map out propagation better.)

PPFMA; WA9WWS Don

Did a bit of a presentation regarding the situation on the peak.

MEGA FEST REPORT: Jim Rader KD0NQM

Still not having one this year. Will most likely start planning the next one in October. Will need someone to take the test with the state for a raffle license. Our past VP has his. License is good for 3 to 4 years.

VICE PRESIDENT Joe KE0TPW Presentation, Mining Museum

Mining Museum: Date was moved to July 10th. Event is a "Science Day".

Jason and LD's Presentation: Fox Hunt Review!

Winners!

Honorable Mention: KD0WMJ Found me during net announcements

First Place: N0DCW in 19 minutes

Second Place: KC0CYW and AE2RW in 23 minutes

Third Place: KD0TRD in 37 Minutes

Future Events: A few booths (mining museum on July 10, Colorado Springs Sesquicentennial on July 31) Maybe an amateur radio mobile-install car show (there may be prizes!)

Some discussion regarding combining the annual picnic and the car show. Special event permitting is a thing. Permit may be \$100.

QCWA CH. 58 Report Mike WV7T or Don N6JRL

Had a meeting over at W5UDM's house. Meetings are typically on the last Saturday of the month.

PPRAA ; Thursday night net

10 Meter and 2 Meter nets are still going. About 20 people checking in every week to the 2 meter net. 10 Meter net is 28.390 USB @ 1900 hrs. 2 Meter: 147.345 @ 2000hrs.

MEETING ADJOURN: 9:00PM OR BEFORE

Interactive LightCube Satellite Set to Launch in Late 2022

* NASA has selected [LightCube](#), along with 13 other small research satellites, to fly as auxiliary payloads aboard rockets launching between 2022 and 2025. The launch opportunity is provided through NASA's CubeSat Launch Initiative. Being designed, built, and tested by an interdisciplinary team of students, advisors, and



engineers across multiple organizations, LightCube is a microsatellite educational mission that aims to produce a light visible to the naked eye of observers on Earth. The spacecraft's two xenon flashtubes will be triggered via amateur radio.

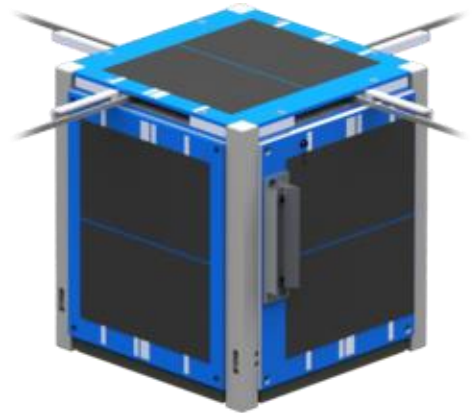
* When the light beacon is activated, the 1U CubeSat will be visible momentarily -- each flash will take 8

microseconds -- from the ground, with a brightness similar to the International Space Station (ISS). Following ISS deployment, LightCube will orbit Earth for approximately 2 years before safely deorbiting.

* The LightCube mission is a collaborative project between Arizona State University's (ASU) Interplanetary Initiative, the ASU Ira A. Fulton Schools of Engineering, Vega Space Systems, and CETYS (Centro de Enseñanza Técnica y Superior) Universidad. ASU designed and built the satellite.

* A radio amateur with a handheld transceiver will wait until the satellite is roughly overhead, as determined by a smartphone or computer app. The user will transmit a predefined number code, and if LightCube is charged, it will flash. The satellite then requires 30 seconds to recharge the capacitor that fires the xenon light tubes. At this point, no frequencies have been coordinated for LightCube.

* The idea itself is not novel. As the LightCube sponsors note, FITSat in 2013 used high-power LEDs to transmit Morse code. EQUisat in 2016 could produce a beacon visible to the naked eye.



May 20, 2021

Pikes Peak Radio Amateur
Association c/o Dick Kohlhaas,
WSUDM P.O. Box 16521
Colorado Springs, CO 80935

Dear Pikes Peak Radio Amateur Association,

Thank you very much for your generous scholarship through the ÆARL Foundation! Your generosity is greatly appreciated and very helpful. My name is David Bolt and I am an incoming senior electrical engineering student at the South Dakota School of Mines in Rapid City, South Dakota. I was born and raised in Colorado Springs and I hope to return to the region after graduation.

Electrical engineering first appealed to me because of the great mystery of electronics. As a college freshman, I felt I had a very rough idea of how cars, bridges, and even airplanes worked, but I was clueless regarding the operation of computers, radios, and the power grid. This curiosity prompted me to study EE. My sophomore year roommate was a long time Amateur Radio operator, and his involvement piqued my curiosity. That same semester I studied for the exam and earned my Technician Class license_

"[his past spring semester I was enrolled in our school's Electronics II course, in which a team of three students construct a Nor-Cal 40A radio. •The NorCal 40A is a 40-meter CW transceiver. Many long hours in the lab taught me to deeply appreciate the complexity and power of radios, as well as to enjoy the troubleshooting and design process. While the course was challenging, it certainly fostered my curiosity for Amateur Radio and encouraged me to continue operating and learning about radios.

Thank you again for your generosity. It is an honor to receive this scholarship.

David J Bolt

David Bolt

KE0YJO



May 20.2021

Pikes Peak Radio Amateur
Association c/o Dick Kohlhaas,
W5UDM P.o. Box 16521
Colorado Springs, CO 80935

Dear Friends,

On behalf of the ARRL Foundation Officers and Board, I am pleased to announce the 2021 recipient of The Pikes Peak Radio Amateur Association (PPRAA) Memorial Scholarship in the amount of \$1000.

David Bolt, KEØYJO, Colorado Springs, CO has been selected for The Pikes Peak Radio Amateur Association (PPRAA) Memorial Scholarship from an outstanding group of applicants. Scholarship recipients were recently notified of their awards, and we have already had many replies conveying their excitement and appreciation.

Scholarships through the ARRL Foundation would not be available without the support of thoughtful and generous sponsors such as you. Thank you for making The Pikes Peak Radio Amateur Association (PPRAA) Memorial Scholarship possible, and for aiding a student Amateur Radio operator in his/her pursuit of their higher education. I am confident that these young people will be successful in their future careers, and in representing Amateur Radio as well.

Again, many thanks for your support of this award. If you have any questions, please contact ARRL Foundation Secretary Melissa Stemmer, KA7CLO at ARRL (mstemmer@arrl.org) or 860-594-0348).

73,

Dr. David Woolweaver, GRAV
President
ARRL Foundation

We were notified via Facebook by former club member Kate, WB9BAH, that her son Jonathan Ellis, K0BBD, AKA DJ Iggy Igloo, passed. Attached is an article about him in the Gazette.

May 20, 2021

Colorado Springs musician and former KRCC host, activist dies at 38

- [Jennifer Mulson jen.mulson@gazette.com](mailto:jen.mulson@gazette.com)
- Jun 3, 2021 Updated 11 hrs ago

Iggy Igloo, a longtime musician and former host of KRCC's "Planet Groove" world music program, died Tuesday due to cancer.

The music community lost a much-beloved bright light this week, when Iggy Igloo, a longtime musician, former host of KRCC's "Planet Groove" world music program and activist, died Tuesday due to cancer.

The Colorado Springs native, whose birth name was Jonathan Ellis, was 38. He is survived by his son Kyan Ellis, mother Karolyn "Kate" Muniz and step-father John Muniz, father William Ellis, sister Jacqueline Ellis, and brother David Ellis.

A memorial service will be held at 1 p.m. June 10 at Hillside Gardens and Event Center, 1006 S. Institute St.

"He was a passionate man who gave everything he had to the community he loved," said his mother.

"Everybody has stories about how he stood up for people. He was passionate about protecting girls and women in abusive relationships. He protected and he took care of people. He would and has given the shirt off his back or the last morsel of food he had to help others. He was the kindest soul."

Igloo, who attended Doherty High School before earning his GED, lived a colorful and sometimes difficult life. He chose to live on the streets when he was 18, his mother said, and struggled with alcohol and drug addictions. At 21, he had a son, which prompted him to get sober and devote his life to music and social activism.

"He was a musical prodigy from the time he was young," Kate said. "When he took piano and trumpet lessons, they called him a prodigy. He never took guitar or banjo lessons, but he picked it up and played like it was his instrument. He was extremely passionate about music."

He busked on his home streets of Manitou Springs, played in bars and other venues and hosted open mics across the Springs and Manitou, while also making 15-20 albums, about 10 of which exist on Spotify. His songs, such as "You are Not Alone," "Light of Life" and "Love Wins," exemplify Igloo's optimism and open-armed approach to life, said musician Conor Bourgal, who collaborated with Igloo on some of his music.

"It was some of the most direct and simple expressions of love and gratitude you would ever hear," Bourgal said. "He lived on the streets. Sometimes he wrote it to get himself through stuff. He'd comfort himself through poetry and music. It's outpourings of love and a love of life and people."

Around 2010, Igloo, a licensed ham radio operator, finished volunteer DJ training at KRCC and was eventually offered a position hosting "Planet Groove," a Tuesday night radio show. He developed a reputation for digging up "beautiful musical nuggets from around the world," said KRCC Music Director and music host Vicky Gregor.

"He had quite a following he built from that. So many people loved that show," she said. "He was fearless. He's somebody who really followed his dreams. Whether that meant living on the street or in some bushes or a camper, he made it work. He was that guy. Tough, but full of his cultural roots."

Those cultural roots, steeped in his Inupiaq heritage, led him to resign from KRCC and spend a year in peaceful protest against the Dakota Access Pipeline at Standing Rock in North and South Dakota. He was able to connect more deeply with indigenous people from around the country. And he brought back a message about the preciousness of water, always reminding those who knew him to drink water.

"Even before he opened his mouth you could tell he was on a different plane than most people," Bourgal said. "There wasn't a lot of small talk. It was about art and music and his activism all the time. He was the embodiment of unconditional love, and he didn't have any requirements for who he was giving love or support to."

Contact the writer: 636-0270



ISOTRON 160/80
We Made It Easy For You!

www.isotronantennas.com

The Best Way To Operate HF
Easy Installation
Excellent Performance
Durable Construction
CC&R Friendly (XYL also)

The articles will also be on our web site.

Getting An HF Antenna To Work.8

The last article described how to use an Antenna Analyzer to measure the value of the antenna, at the antenna, with no coax attached.

Connecting a length of coax to the antenna will offer a different measurement with your analyzer at the radio end of the coax. Measuring at the radio end of the coax requires a Smith Chart calculation. You will need to know the length of coax in wavelength, velocity factor and frequency. Tooo much trouble! This is beyond the scope of this article and I can hardly remember how to use it. Let's make it easier.

If your Antenna Analyzer does not do a Smith Chart calculation, then it can not give the antenna values at the radio end directly. Regretfully this is as far as the analyzer can go. You can use the Analyzer to measure SWR much like your transceiver will do, however the rest is mostly guess work. Now, what can you do?

The Noise Bridge is an inexpensive device that tells the whole story with coax. It is accurate and reliable.

The Noise Bridge has 2 control settings. X and R. It has 2 connectors, Receiver and Unknown.

At the antenna, connect the Unknown directly to the antenna with a double male connector. Connect the Receiver connector to the coax going back to your radio.

You will have to hear your receiver out at the antenna where the bridge is. I have used the base of a cordless phone and made an adapter to plug into the head phone jack on the receiver. Now you can take the phone handset out to the work site and hear the receiver.

Turn the receiver on and set it to where you will operate. Adjust the volume so you do not blow your ears out from the hand set. Now strut out to the antenna site.

Turn the Noise Bridge on. You will hear noise, lots of it. Turn the X control until the noise is least. Do the same for the R control. Repeat until the noise is gone.

Look at the settings of the 2 controls. If the X setting is on the X_L side, then the antenna resonant point is lower than where your receiver is set.

If it is on the X_C side it is higher than the receiver setting. When it is at 0, you are at the resonant point. Now look at the R setting.

This will tell you the radiation resistance of the antenna. You are hoping for 50 ohms. This will offer a 1:1 SWR. If the reading is higher or lower, the SWR will be directly affected.

The X control reflects 99% of the Tuning. The R is a minor match or mis-match that can be compensated for easily.

Next article will go into more hands on use of the Noise Bridge.

73, Ralph WD0EJA June 2021

Bilal Company
Manchester Dr.
80816
www.isotronantennas.com

137
Florissant, Co
Ph: 719/687-0650
wd0eja@isotronantennas.com

Members and Friends of the Cheyenne Mountain Repeater Group,

The weather is getting better and it is time to start working on mountain top repeaters. CMRG has been working through the winter on overhauling the repeater system on Raton Pass. This is the most complex repeater system CMRG has ever built. When installed, the system will have:

- VHF Repeater on 145.430 MHz
- VHF repeater linked to Cheyenne mountain 147.345 via Allstar
- UHF backup link to Cheyenne Mtn
- UHF Repeater on 449.600 MHz
- UHF D-STAR repeater
- 900 MHz P-25 repeater linked to the CO 900 system
- APRS Digipeater (RATON)
- LinkCommunications RLC-4 repeater controller with remote control
- Triplite 2200 watt UPS with remote monitoring and external batteries

The repeater system (2 cabinets) will be installed on Raton Pass (CO/NM border) at the transmitter site of KCRT. The repeater will be in the former generator building. The building requires some cleanup and electrical work before we can install the repeaters

The current plan is to do the installation in two trips

June 5, 2021 - . This first trip will be to clean out the building and make it ready for the repeaters. This includes removing a concrete blob, doing some electrical work, patching a hole in the building, running the fiber optic cable between the buildings, and installing a pipe for two antennas.

June 19, 2021 - This second trip will be to move the d-star repeater from the transmitter building to our building, install the analog repeater cabinet, install 2 antennas on a 10' pipe, replace 2 antennas on the 20' tower, and connect the UPS system.

We will need 6-8 people for each trip. Most of the work on trip 1 is not technical, but just requires some basic construction skills. On trip 2, we will need some strong backs to help move the equipment cabinets into place and install antennas on a 20 foot tall tower. We can use any manpower we can get.

Each trip will be a full-day adventure. The site is just off I-25 at Raton Pass. The access road dirt is not bad and takes about 10 minutes. If you can help out on one or both of the trips, please either reply to this email, send me a direct email (wa6ifi@gmail.com) or call me at 719-439-9077.

Thanks for considering helping out the group. Please forward this to other ham groups with which you may have contact.

Thanks,
Dave Novotny, WA6IFI
Chairman, Cheyenne Mountain Repeater Group, Inc
719-439-9077

Are you ready for the new RF exposure evaluation regulations?

By Dan Romanchik, KB6NU

On Tuesday, April 27, Dan, W1DAN, ARRL Eastern Massachusetts Section Technical Coordinator, gave a Zoom presentation on the latest FCC regulations on RF exposure evaluation. These are spelled out in FCC-1926A1 (<https://www.fcc.gov/document/fcc-maintains-current-rf-exposure-safety-standards>), "Proposed Changes in the Commission's Rules Regarding Human Exposure to Radiofrequency Electromagnetic Fields; Reassessment of Federal Communications Commission Radiofrequency Exposure Limits and Policies." The document is as long as the title might suggest—159 pages—but W1DAN boiled it down, focusing on what these changes mean for radio amateurs.

A recording of the presentation can be viewed by going to https://drive.google.com/drive/folders/1_qIGZhHyMrha-axJt87Dcu0UZuJO0t8F.

After explaining how RF exposure can be harmful, Dan explained how the rules are changing: The biggest change, he notes, is that amateur radio's categorical exclusion has been eliminated. What this means is that now every radio amateur will have to perform an RF exposure evaluation of their stations. This now includes mobile and portable stations, including HTs, SOTA/POTA stations, and Field Day and special event stations.

He noted that you must be able to prove that your station is safe. This includes not only performing the evaluation, but also documenting these evaluations, should this data be requested by FCC personnel.

One thing that's not changing are the maximum permissible exposure (MPE) limits. These are spelled out in FCC OET Bulletin 65

(https://transition.fcc.gov/Bureaus/Engineering_Technology/Documents/bulletins/oet65/oet65.pdf), "Evaluating Compliance with FCC Guidelines for Human Exposure to Radiofrequency Electromagnetic Fields." The FCC published this document in August 1997, but it's still the Bible when it comes to RF exposure. If you don't have a copy, or have never taken a look at it, you really should do so.

Be careful, though, when reading it. It contains a table (Table 1 on p. 21) that contains a list of output powers at various frequencies. If your station exceeded those limits, then you were required to perform an RF evaluation. Now, however, all amateurs (and other radio services, for that matter) must perform RF exposure evaluations if their output power exceeds 1 mW. We are no longer categorically excluded from performing these evaluations.

OET Bulletin 65 goes on to give guidance on how to calculate or measure exposure levels. Explaining how to do this is outside the scope of this article, but again, you'll want to refer to the bulletin for more information.

Besides the elimination of the categorical exclusion for amateur radio stations, what else is new is the dates on which amateur radio stations must perform evaluations. They are:

- **May 3, 2021(!)** for new and modified stations
- May 3, 2023 for stations that complied under the old rules.

Having said all that, the ARRL's RF Exposure page (<http://www.arrl.org/rf-exposure>) has a lot of resources to help you understand this topic and perform your own RF exposure evaluations:

- An RF-exposure FAQ (<http://www.arrl.org/files/file/Technology/RFsafetyCommittee/RFXFAQ.pdf>) to help hams understand the new rules.
- "Learning to Live with RF Safety (http://www.arrl.org/files/file/protected/Group/Members/Technology/tis/info/pdf/QST_Mar_2009_p70-71.pdf)," *QST* March 2009 pp. 70-71.
- RF Safety at Field Day (<http://www.arrl.org/files/file/Technology/tis/info/pdf/9906048.pdf>) *QST*, June 1999, pp. 48-51. A case study of Field Day with NSRC in a public park
- RF Exposure Station Evaluation and Exemption Worksheets (http://www.arrl.org/files/file/Technology/tis/info/pdf/rfex1_2.pdf)
- *RF Exposure and You* (<http://www.arrl.org/files/file/Technology/RFsafetyCommittee/RF%20Exposure%20and%20You.pdf>). This 8 Mbyte PDF file contains the text of the entire book by Ed Hare, W1RFL.
- Chapter 5 References (<http://www.arrl.org/files/file/Technology/tis/info/pdf/RF%20Exposure%20Chapter%205.pdf>) needed for filling out worksheet.

There are also links to FCC web pages with information on RF exposure.

I'm sure we'll all be hearing more about this in the days ahead. Hopefully, someone will come out with a simple way to do the modeling or make the calculations. As always, play safe.

=====

Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (<https://KB6NU.Com/study-guides/>), and often appears on the ICQPodcast (<https://icqpodcast.com>). When he's not RF exposure evaluations, he teaches online ham radio classes and operates CW on the low end of the HF bands.

May 20, 2021
 Pikes Peak Radio Amateur Association
 c/o Dick Kohlhaas, W5UDM
 P.O. Box 16521

Colorado Springs, CO 80935

What amateur radio clubs and services are worth paying for?

By Dan Romanchik, KB6NU

On the amateurradio subreddit
(<https://www.reddit.com/r/amateurradio/>),
someone asked:

I have always wondered what
subscriptions/memberships are worth having?
Is ARRL worth the \$50/year? What about QRZ
\$30/year for XML data? Is there something that is a must have ?



Several replied in the affirmative about the ARRL:

I joined the ARRL so they can lobby for amateur radio when needed.

I think ARRL is worth it.

If you care about things like DXCC awards, and are in the US, you will need to be an ARRL member. Now that QEX, The National Contest Journal, On the Air and QST digital are all member benefits, I would say you get enough for your \$50 to make it worthwhile

Of course, there were differing opinions:

They [expletive deleted] up the Parity Act so badly that it's almost hilarious. ARRL will never see a dime from me.

There were a lot of comments about subscribing to QRZ.Com:

I spend a bunch of time on QRZ every day, and I log every contact in their logbook, and then send it to LoTW, so the XML is well worth it. Also, will all the time on the forums and the articles I spend I enjoy not having the ads, and supporting what I believe is a fantastic website.

QRZ is worth it so you can integrate with logging software or if you want upload your ADIF file from WSJT-X, if you do FT8, that sort of thing.

I've never felt the need for a QRZ subscription. Only when I was the noobest of noobs and couldn't tell the difference between ON4 and OH2 did I ever run up

the 100 lookup a day limit. Now with...alternate... lookup services even hitting the limit might not matter for most hams.

There were some comments about supporting local groups:

You should definitely seek out your local club(s) and join whatever ones seem like a good fit to you. You can learn a lot from a good club, and having a couple of hands to help with antennas/ loan equipment is a fantastic benefit.

I donated to the repeater I use the most.

As for me, I am a member of the ARRL, and at various times, have been a member of:

- AMSAT
- Amateur Radio Lighthouse Society (ARLHS)
- TAPR
- QRP Amateur Radio Club Intl. (QRP-ARCI)
- Quarter Century Wireless Assn. (QCWA)
- Northern California DX Foundation (NCDXF)
- Michigan QRP Club
- ARROW – the amateur radio club here in Ann Arbor

My membership is current in AMSAT, ARLHS, QRP-ARCI, MI QRP Club, and ARROW.

I would encourage you to become an ARRL member and a member of other groups that serve your particular interest in amateur radio. I like operating from lighthouses, so I'm a member of ARLHS. If you're a big DXer, join NCDXF. If you're a QRPer, then QRP-ARCI is the group for you. Becoming a member really will help you have more fun with amateur radio.

You probably belong to your local club if you're reading this column, but I'm curious about what other amateur radio subscriptions you have or which services you pay for. Feel free to email me and let me know which groups you support and why you do so.

Dan Romanchik, KB6NU, is the author of the KB6NU amateur radio blog (KB6NU.Com), the "No Nonsense" amateur radio license study guides (<https://KB6NU.Com/study->

guides/), and often appears on the ICQPodcast (<https://icqpodcast.com>). When he's not paying his dues, he teaches online ham radio classes and operates CW on the low end of the HF bands.

(Not Yet) Collecting \$35 Application Fee

The majority of the FCC's revised Part 97 rules (adopted in December 2020) establishing new application fees become effective on April 19, but the new amateur radio application fees will *not* become effective on April 19. The FCC announced on March 19 that the amateur radio application fees, including those associated with Form 605 filings, would not become effective until the "requisite notice has been provided to Congress, the FCC's information technology systems and internal procedures have been updated, and the Commission publishes notice(s) in the *Federal Register* announcing the effective date of such rules."

The \$35 fee, when it becomes effective, would apply to new, modification (upgrade and sequential call sign change), renewal, and vanity call sign applications, as well as applications for a special temporary authority (STA) or a rule waiver. All fees will be per application. Administrative updates, such as a change of mailing, email address, or name, are exempt.

It is expected that such fees will not become effective before summer 2021. The FCC has stated that amateurs will have advance warning of the actual effective date, because it will publish such date in the *Federal Register*.

ARRL Volunteer Examiner Coordinator ([VEC](#)) Manager Maria Somma, AB1FM, said VECs and Volunteer Examiner (VE) teams will not have to collect the \$35 fee at exam sessions. Once the FCC application fee takes effect, new and upgrade applicants will pay the \$15 exam session fee to the VE team as usual, and pay the \$35 application fee directly to the FCC via the [Fee Filer System](#) or [License Manager System](#). Somma said this information was provided in a [VE Newsletter](#) distributed this past week. "Further news and instructions will follow when we have them," she said



Celebrating 10 Years of Summits On The Air in Colorado

Bob Witte, KØNR
bob@k0nr.com

The Summits On The Air (SOTA) program originated in the United Kingdom but has propagated to most countries around the world. The program came to Colorado on May 1st, 2010 with Steve/WGØAT sending a CQ from Mount Herman, just west of Monument. Today, the SOTA program in Colorado (called WØC-SOTA) is very active with roughly 180 activators that operate from Colorado summits.

To celebrate our 10th Anniversary, [WØC-SOTA](#) is organizing a **10-10-10 Event** with a challenge for Activators and Chasers alike. (Activators operate from summits, Chasers try to contact them.)

Activator challenge: Activate **10** (or more) **10K** feet (or higher) summits (in Colorado/WØC) within **10 days**.

Chaser challenge: Chase Activators on **10 different** (or more) qualifying WØC summits (**10K** or higher) within the **10 days**.

Event Date: We will kick-off the event in conjunction with the [Colorado 14er event](#) on August 7th, 2021 and conclude on August 16th.

Everybody is invited to participate, either as an Activator or a Chaser. Block off these days in your calendar now and start planning for how you can participate. Feel free to operate as much or as little as you would like. It is all about having fun messing around with radios. Any HF, VHF or UHF band can be used for making SOTA contacts, with the most popular ones being 40m (CW & SSB), 20m (CW & SSB) and 2m (FM).

There will be a leaderboard on the [WØC-SOTA](#) website showing all participants who meet one of the challenges. More details will be announced on the WØC-SOTA Website as soon as they are hashed out.

For more information on the SOTA program in general, see the [worldwide SOTA website](#).

Full Disclosure: May 1 is actually the 11th Anniversary, but the COVID-19 Pandemic interfered in 2020, so we are catching up.



Figure: Steve/WGØAT operates HF phone from a SOTA summit in Colorado.

PIKES PEAK RADIO AMATEUR ASSOCIATION **AFØS**



Radio _____ Confirming QSO _____, _____ UTC
 Mode _____ Frequency _____ MHz Your sigs: _____
 Transceiver: _____ Antenna: _____
 Operator: _____ Grid: DM78tt
 Mailing address: PO Box 16521, Colorado Springs, CO 80935
 Station Location: Ellicott, CO PSE QSL TNX
 Email: station@ppraa.org



Major Events

PPRAA Awards Program

I have been the Awards/Recognition committee chair for almost 20 years. Awards have been issued when applied for. I just reviewed my logs and found I qualified for the VUCC award with 116 grid squares worked on 6 meters.

If folks will let me know what they have qualified for and fill out an excel log data sheet I will print out a very nice certificate.

Certificates can be printed for regular achievements or a goal you set for yourself.

Mike WV7T

Wv7t@aol.com

I am cutting back on my ham radio activities as other matters have arisen I must concentrate on.

These I will be available to provide:

Technician and General class license tutoring

Hands on skills

Ham equipment and accessories

Club asset manager

Award-Recognition program chairperson (We do have an awards program in PPRAA)

Lots of advice

I can be contacted at 719-229-8610 or wv7t@aol.com

 **ARRL** 

the national association for Amateur Radio

HEADQUARTERS, NEWINGTON, CONNECTICUT, U.S.A.

Charter of Affiliation

50 Years

Whereas it is the desire of the ARRL to establish bonds of affiliation with noncommercial Amateur Radio organizations of kindred aims and purposes to make possible unity of action in matters affecting the welfare of Amateur Radio and lend mutual strength; and *Whereas*

Pike's Peak Radio Amateurs Association

has declared its sympathy with and allegiance to the aim's and policies of the League in its efforts to strengthen and advance Amateur Radio Communication and Experimentation, and has expressed its willingness and desire to cooperate therein:

Now Therefore, under the policies of its Board of Directors, the ARRL as of this date hereby declares the said organization to be an affiliated body, and issues this charter in token thereof.

November 20, 1951
Affiliated

David Sumner
Secretary

John H. H. H.
President

This was 2001 when PPRAA was 50 year ARRL affiliation.
This year 2021 is 70 year PPRAA affiliation.
Nice job folks.

July 25, 2001

Pikes Peak Radio Amateur Assoc
1420 North Gate Rd
Colorado Springs CO 80921-3025

Dear Sidney: *W 7/28/01*

Congratulations on 50 years of affiliation with the ARRL! We have prepared a special certificate to commemorate this achievement. The certificate will be mailed to you directly, or sent to your Division Director. If a certificate is not enclosed with this letter, your Division Director, or another League Official, will present it to your club. The League Official selected for presenting the certificate to your club will contact your Club President or ARRL Liaison to make arrangements.

The League's affiliated clubs have been the backbone of organized Amateur Radio for more than 80 years. Amateur Radio classes, TVI committees, equipment exchange and camaraderie are just a few benefits offered to club members. Your club, the League, and Amateur Radio as a whole have grown during our long association. Who knows what's in the future? We do know, however, that clubs like yours will continue to meet and shape the challenges and opportunities the Amateur Radio Service encounters daily.

We hope the next 50 years of affiliation will be as enjoyable and beneficial as the first 50!

73,

Margie Bourgoin, KB1DCO
Margie Bourgoin, KB1DCO
Club & Educational Correspondent

AMERICAN RADIO RELAY LEAGUE

ADMINISTRATIVE HEADQUARTERS • 225 MAIN STREET • NEWINGTON, CONNECTICUT, USA 06111-1494
TELEPHONE 860-594-0200 • FAX 860-594-0259 • INTERNET: hq@arri.org • WWW: <http://www.arri.org/>

2021 is the 70th year of PPRAA ARRL affiliation.
That is a long time!

*You shop. **Amazon gives.***

Amateur Radio Emergency Links Info

Amateur Radio and Emergency Communications

<https://alertfind.com/amateur-radio-and-emergency-communications/>

Disaster Preparedness on a Budget

<https://couponfollow.com/research/disaster-preparedness-on-a-budget>

From the annals of PPRAA history

June 1982:

Field Day is this month. The club will operate as a 3A station, with HF SSB, HF CW, and VHF. The Hammy was awarded to Jake NØCYR, Rosie WAØMNL and Duane N7BTE for their efforts on the swapfest. Jim Kervinch of the Colorado Springs gave the program on power line safety. He had live high-voltage demonstrations. Unable to make reservations at the Black Forest picnic ground for the picnic, the club will try for the pavillion at Bear Creek Park. There will be a fox hunt on June 6, which will meet at Godfather's Pizza on Fillmore St. The June meeting will be on severe weather, presented by a meteorologist from the National Weather Service.

Parker Radio Association

PPRAA Team,

Be sure to join us for our weekly nets Monday and Tuesday evenings!

First, Monday, at 8:30pm, on D-Star XRF223B, the PRA holds its D-Star net. There is plenty of conversations from everything digital to the latest projects and devices... from DStar / DMR / Fusion / Brandmeister / Hotspots, and even CW. This can be accessed via your local hotspot. Also, many have linked via the WOCDS 2M repeater as well. Considering our KOPRA repeater is being relocated, using the WOCDS 2M side would be best (please follow common/courteous practice when linking).

Second, at 8:00pm on Tuesday, is the PRA weekly analog net on the WOCFI 448.675 – (100Hz) repeater. This is a great way to catch up on the happenings of the PRA and is a great environment to ask any question related to the hobby or to give yourself some bragging rights on a recent license, upgrade, or new piece of equipment.

We'll see you on the air!

73, KØPRA Your Friends at the Parker Radio Association

www.facebook.com/parkerradioassociation parkerradio.org

[@ParkerCORadio](https://twitter.com/ParkerCORadio)

ARRL Outgoing QSL Bureaus

www.arrl.org/outgoing-qsl-service

ARRL affiliated-club stations may use the service when submitting club QSLs for its members in bulk ("pooling" their members cards together in one package) by indicating the club name inside the package. Club secretaries should check club affiliation on the ARRL web site to ensure that their affiliation is current. In a "pooled" package, each club member using this service **must also be an ARRL member**. Cards should be sorted "en masse" by prefix and a proof of membership should be enclosed for each ARRL member. QSLs for unaffiliated club calls may also be sent via the outgoing bureau to foreign destinations if the trustee of the club call is a member in good standing. The trustee's proof of membership must be included with the club call-QSLs.



PPRAA VE EXAMS (MONTHLY)

PPRAA VE session has relocated and will be held at 10:00 am on the second Saturday of the month at Pikes Peak Regional Office of Emergency Management
3755 Mark Dabbling Blvd, Colorado Springs, CO 80907, USA

Organizer: ve@ppraa.org

TESTING IS FREE. Applicants will need the following items at the session:

1. A valid **PHOTO ID**, driver's license preferred (if you do not have a valid photo ID, please call for alternative identification requirements).
2. Your **FRN NUMBER** (Please obtain in advance of the session).
3. A copy of your **amateur radio license** (if any).
4. The **ORIGINAL** of any relevant **CSCs** you have **AND** a **PHOTOCOPY** for the VE Team to keep.

PPRAA VE Team policy, as with many VE Teams, is to not allow same day retests on failed exams. Anyone passing their Technician Class examination at a PPRAA test session will receive a free year's membership to the Pikes Peak Radio Amateur Association.

Jim Bishop kd0kql@hotmail.com, 719 332-5283, 000PPRAA VE Contact



MARC VE EXAMS

(January, March, May, July, September, November)

The Mountain Amateur Radio Club (MARC) VE Team conducts VE exam sessions in Woodland Park every odd month at 10 am on the first Saturday in the Community Meeting Room of the Woodland Park Library, 218 East Midland Avenue. The MARC VE Team is affiliated with the ARRL/VEC and examinations for all classes of license will be offered.

Full information, including driving directions to the Woodland Park Library, is available under “VE Sessions” on the MARC website at <http://www.nx0g.org/ve.html> or contact Wes Wilson (KØHBZ) at k0hbz@arrl.net or call (719) 687-8758.

If attending, please BE SURE to bring the following items to the session:

A valid PHOTO ID, driver's license preferred (if you do not have a valid photo ID, please call for alternative identification requirements).

- 1. Your FRN NUMBER** (now required – this includes children Please obtain in advance of the session).
- 2. Your ORIGINAL amateur radio license** (if any) **AND a PHOTOCOPY** for the VE Team to keep.
- 3. The ORIGINAL of any relevant CSCEs** you have **AND a PHOTOCOPY** for the VE Team to keep.

- MARC VE Team policy, as with many VE Teams, is to not allow same day retests on failed exams. For already licensed hams, MARC members should be monitoring the MARC repeater system 146.820- or 448.650- (both 107.2 Hz) if you need help with talk-in. 73 Dean Buckhouse



Both the pdf and spiral-bound printed versions are available from Lulu.com, and the print copy is also sold by DX Engineering. You can find them via the links below:

<http://www.ke7x.com/successful/ordering-the-successful-ham-radio-operator-s-handbook>

Here is a link that describes the book in more detail:

<http://www.ke7x.com/successful>

Follow us on www.facebook.com/KE7XBOOKS to keep up-to-date on book news and to be notified of book discounts at www.lulu.com.

This book has 267 pages, 211 figures and diagrams, and 53 tables of data to make understanding the sometimes complicated ham radio operations much easier. The book follows KE7X's philosophy of presenting material in several forms to accommodate people with different learning styles -- reading, visualizing, hands-on -- with the many figures and text explanations and there are hands-on exercises throughout the book that can help you learn more about your particular radio.

Follow us on www.facebook.com/KE7XBOOKS to keep up-to-date on book news and to be notified of book discounts at www.lulu.com.

One instructor for new and advanced ham classes has said, "This book is exactly what is needed. I've seen some other books targeting the new hams that are less than satisfying both technically and in content but this one is right on the mark and covers so much information that I so often get asked about, during and after teaching classes."

Here are more details on the content:

- With nearly 110 years of ham radio experience between them, the authors are still excited about the challenges this wonderful hobby offers. *The Successful Ham Radio Operator's Handbook* will guide you when exploring some of these.
- Its goal is to help new operators and returning old-timers learn about the breadth of exciting ham radio activities and challenges available today.
- It answers the question "Why is ham radio relevant in the Internet age?"
- It covers a wide range of topics, helping the reader to understand the excitement of different facets of ham radio and to choose a challenging and exciting activity to pursue.
- It helps the reader better understand how the radio works. Many hams only use a small fraction of the features of their radio. For example, if you understand how a noise blanker or a roofing filter or the AGC works, you will be able to more easily use these, and other, features of your radio to your benefit.
- It provides exercises designed to apply the knowledge to cement your understanding of how your radio works without being radio-specific. It is good for all makes and models.
- It helps the reader get enough background to understand much of the jargon hams who pursue special activities, such as the various digital modes, VHF contesting and moon bounce. It quickly takes the novice reader to higher level of understanding and provides URLs and websites that help the reader go deeper into new interests.
- Antennas remain a key area where all hams can still successfully experiment and create a key part of their station. This book provides information to help new hams get started cutting their own verticals and dipoles. It explains why some popular multiband antennas may have compromises that impact performance.

- It gives practical guidelines about choosing transmission lines and building and using baluns and chokes.
- Digital modes such as RTTY, PSK and the new WSTJ modes are explained. The computer-to-radio connections needed for these modes are discussed and illustrated.
- Many hams are motivated by public service and emergency preparedness. This book describes typical local emergency organizations and national networks.
- Hams who like to operate while traveling will find practical information on reciprocal international agreements and how to get permission to operate legally.

Online Practice Test Sites



Study for your Amateur Radio License exam:

[Technician \(2018-2022\)](#)

[General \(2019-2023\)](#)

[Amateur Extra \(2019-2020\)](#)

[Other...](#)

HamExam.org Amateur Radio Practice Exams

Log in using <https://hamexam.org> or click [**register**](#) to create an account. If this is your first visit to the site, please read my brief [**introduction**](#).

QRZ.COM <https://www.qrz.com/hamtest/>

Eham <https://www.eham.net/exams/>

AA9PW.COM

Membership Application
Pikes Peak Radio Amateur Association, Inc.
P.O. Box 16521, Colorado Springs, Colorado 80935

Date: _____ ☐ New Membership ☐ Renewal

Name: _____

E-mail address: _____

Address: _____

City: _____ State: _____ Zip: _____

Call: _____ License Class: _____ Telephone: _____

Are you an ARRL member? ☐ Yes ☐ No

Additional Name: _____ Call _____ Class _____ ARRL member? ☐ Yes ☐ No

Additional Name: _____ Call _____ Class _____ ARRL member? ☐ Yes ☐ No

Additional Name: _____ Call _____ Class _____ ARRL member? ☐ Yes ☐ No

- ☐ Full Member - \$15.00
- ☐ Full Member over 65 - \$10.00
- ☐ Free - VE Signature Required:

- ☐ Family Membership (same address) - \$18.00
- ☐ Family Membership (both over 65) - \$12.00